

1. An airbag restraint module, comprising:
an inflatable cushion defining a mouth for receiving inflation fluid;
a housing configured to retain the inflatable cushion when the cushion is in a folded state;
5 an inflation fluid source, having a proximal end and a distal end, attached to the housing and in communication with the inflatable cushion, a majority of the inflation fluid source positioned adjacent to or within the housing; and
a retaining collar defining an opening, the retaining collar positioned to retain the inflatable cushion in communication with the inflation fluid source.

10 2. The module of claim 1, wherein the housing is substantially cylindrical.

3. The module of claim 1, wherein the inflation fluid source is disc-shaped.

4. The module of claim 1, wherein the inflation fluid source comprises an attachment flange extending orthogonally outward from an outer surface of the inflation fluid source.

15 5. The module of claim 4, wherein the attachment flange is positioned adjacent the proximal end of the inflation fluid source.

6. The module of claim 4, wherein a majority of the inflation fluid source is between the distal end of the inflation fluid source and the attachment flange.

7. The module of claim 4, wherein between about one third and about one seventh of the height of the inflation fluid source extends outwardly from the attachment flange.

8. The module of claim 7, wherein between about one fifth of the height of the inflation fluid source extends outwardly from the attachment flange.

9. The module of claim 1, wherein the inflation fluid source comprises a plurality of openings spaced about an outer surface of the inflation fluid source through which inflation fluid is directed out of the inflation fluid source.

10. The module of claim 1, wherein the inflation fluid source comprises a pyrotechnic generant that produces inflation fluid upon ignition.

11. The module of claim 1, wherein the inflation fluid source produces at least about 80 liters of inflation fluid volume.

12. The module of claim 11, wherein the inflation fluid source produces at least about 120 liters of inflation fluid volume.

13. The module of claim 1, wherein the inflation fluid source weighs between about one quarter of a kilogram and about four kilograms.

14. The module of claim 13, wherein the inflation fluid source weighs about one kilogram.

15. The module of claim 1, wherein the retaining collar includes an annular flange flaring outwardly away from the opening thereby directing the inflation fluid source into the cushion.

16. The module of claim 1, wherein the mouth of the inflatable cushion is
5 substantially circular.

17. The module of claim 1, wherein the inflation fluid source comprises a substantially cylindrical portion configured to fit within the mouth of the inflatable cushion.

18. An airbag restraint module, comprising:

an inflatable cushion defining a circular mouth for receiving inflation fluid;

a substantially cylindrical housing configured to retain the inflatable cushion in a folded state;

5 an fluid source having an attachment flange extending substantially orthogonally outward from a an outer surface of the inflation fluid source, the inflation fluid source having a proximal end and a distal end, the inflation fluid source being attached to the housing and in communication with the inflatable cushion, the inflation fluid source having a cylindrical portion with openings spaced about an outer surface of the cylindrical
10 portion; and

a retaining collar defining an opening, the retaining collar positioned about the inflation fluid source and adjacent an inner surface of the inflatable cushion to retain the inflatable cushion in communication with the inflation fluid source.

19. The module of claim 18, wherein the inflation fluid source is positioned
15 substantially within the housing.

20. The module of claim 18, wherein the attachment flange is positioned adjacent the proximal end of the inflation fluid source.

21. The module of claim 18, wherein a majority of the inflation fluid source is between the distal end of the inflation fluid source and the attachment flange.

22. The module of claim 21, wherein between about one third and about one seventh of the height of the inflation fluid source extends outwardly from the attachment flange.

23. The module of claim 22, wherein between about one fifth of the height of the inflation fluid source extends outwardly from the attachment flange.

24. The module of claim 23, wherein the inflation fluid source comprises a pyrotechnic generant that produces inflation fluid upon ignition.

25. The module of claim 24, wherein the retaining collar comprises an annular flange, said flange flaring outwardly away the inflation fluid source.

26. The module of claim 25, wherein an outer edge of the flange extends axially beyond inflation fluid source openings within an outer surface of the inflation fluid source thereby deflecting the inflation fluid as it exits the inflation fluid source.

27. The module of claim 26, wherein the inflation fluid source is configured to produce at least about 80 liters of inflation fluid volume.

28. The module of claim 27, wherein the inflation fluid source is configured to produce at least about 120 liters of inflation fluid volume.

29. The module of claim 28, wherein the inflation fluid source weighs between about one quarter of a kilogram and about four kilograms.

30. The module of claim 29, wherein the inflation fluid source weighs about one kilogram.

30. The module of claim 29, wherein the inflation fluid source weighs about one kilogram.

31. An airbag restraint module, comprising:

an inflatable cushion defining a circular mouth for receiving inflation fluid;

a substantially cylindrical housing configured to retain the inflatable cushion in a folded state;

- 5 an disc-shaped inflation fluid source attached to the housing and in communication with the inflatable cushion, the inflation fluid source having a plurality of openings through which inflation fluid may pass, the inflation fluid source comprising a cylindrical portion positioned substantially within the housing, the inflation fluid source further configured to produce at least about 120 liters of inflation fluid volume; and
- 10 a retaining collar positioned about the inflation fluid source and adjacent an inner surface of the inflatable cushion to retain the inflatable cushion in communication with the inflation fluid source.